

Appl. No. 10/002,063
 Amndt. dated 9/15/05
 Reply to Office Action of 6/16/06

PATENT
 Docket: 000067

REMARKS

Claims 1-33 are pending in the present application. In the above amendments, claims 1, 18, 22 and 26 have been amended. Therefore, after entry of the above amendments, claims 1-33 will be pending in this application. Applicants believe that the present application is now in condition for allowance, which prompt and favorable action is respectfully requested.

Allowed Claim 17

Applicants note with appreciation the allowance of claim 17.

Objected to Claims 4, 7 and 9

Claims 4, 7 and 9 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants would like to keep claims 4, 7 and 9 in dependent form in the present amendment.

Rejection of Claims 1-3, 5 10-16 and 18-30 Under 35 U.S.C. §102(b)

Claims 1-3, 5 10-16 and 18-30 stand rejected under 35 U.S.C. §102(b) as being anticipated by Sutton (U.S. Patent No. 5,805,648).

Claim 1 of the present invention, as amended, recites:

"A method for searching for pilots in a wireless communication system, comprising:
 searching in a first stage over a designated code space for peaks in a received signal and providing a set of detected peaks;

forming in a second stage a plurality of dwell windows for the detected peaks, wherein the dwell windows have variable sizes and cover variable numbers of detected peaks, the variable sizes and variable numbers of detected peaks being determined based on locations of the detected peaks in the designated code space; and

searching over the dwell windows for peaks in the received signal and providing a set of one or more candidate peaks."

Applicants submit that claim 1 is not anticipated by Sutton for at least the following reasons. Sutton does not describe "forming in a second stage a plurality of dwell windows for the detected peaks, wherein the dwell windows have variable sizes and cover variable

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numbers of detected peaks,” as claim 1 recites. Sutton performs pilot searches in four stages, with each stage using a specific set of search parameters, which is given in Tables I and II. The “dwell windows” in claim 1 generally correspond to the “zoom window” in Table II. Table II indicates that the same zoom window size of 6 PN chips is used for all four stages in Sutton. In contrast, claim 1 recites forming dwell windows having variable sizes in a single stage.

Furthermore, the zoom window of Sutton is arguably intended to cover a single peak and not a variable number of detected peaks, as claim 1 recites. Sutton states “this zoom window is selected in accordance with the peak of the energy curve. When a peak is detected, the searcher controller 18 zooms in on that peak and tests PN values in a smaller set close to the PN value that gave rise to the detected peak.” (See column 6, lines 22-26.)

The rejection (on page 6) states that “Sutton teaches dwell windows, which have variable sizes, col. 5 lines 55-65, and cover variable number of detected peaks.” This cited section of Sutton states:

“In the exemplary embodiment, each stage (i.e. stages 1-4) is performed with a different window size, number of chips to integrate, number of coherent passes, an early dump chip number, an early dump threshold and a window acceptance threshold.

The numbers provided in Table I are illustrative and it is envisioned that other window sizes, thresholds and integration parameters could be used. After each set of window has been exhaustively searched, a new set of search parameters are used which as described above are optimized for different operating conditions. In the exemplary embodiment, the values of Table I are stored in a memory device (not shown) within searcher controller 18.”

Applicants submit that the word “different” in column 5, line 56 is intended to cover the entire set of search parameters and not just “window size”. For example, Table I indicates that different numbers of chips to integrate are used for the four stages, and yet the word “different” does not precede “number of chips to integrate” in column 5, line 57. The word “other” in column 5, line 61 is also intended to cover the entire set of search parameters and not just “window size”. Hence, Sutton does not explicitly describe using search window of variable sizes within a single stage. Furthermore, Table II explicitly shows the use of zoom windows of the same size of 6 PN chips for all four stages.

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For at least the above reasons, Applicants submit that claim 1 is not anticipated by Sutton. Claims 2, 3, 5, 10-16 and 30 are dependent on claim 1 and are not anticipated by Sutton for at least the reasons noted for claim 1.

Independent claims 18, 22, and 26 have each been amended to recite features similar to the features noted above for claim 1. Claims 18, 22, and 26 are also not anticipated by Sutton for the reasons noted above for claim 1. Claims 19-21 are dependent on claim 18, claims 23-25 are dependent on claim 22, and claims 27-29 are dependent on claim 26. These dependent claims are also not anticipated by Sutton for at least the reasons noted for their base claims.

Accordingly, the §102(b) rejection of claims 1-3, 5 10-16 and 18-30 should be withdrawn.

Rejection of Claims 6 and 8 Under 35 U.S.C. §103(a)

Claims 6 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sutton (U.S. Patent No. 5,805,648). The rejection states that Sutton does not disclose limiting the number of overlapping individual search, but that it would be obvious to one skilled in the art to have the feature of limiting the number of overlapping individual search so that the system can avoid waste of resources.

Applicants submit that claims 6 and 8 are patentable over Sutton since Sutton does not describe all of the elements of base claim 1, as discussed above.

Accordingly, the §103(a) rejection of claims 6 and 8 should be withdrawn.

Rejection of Claims 31-33

Claim 32 stands rejected under 35 U.S.C. §102(b) as being anticipated by Sutton. Claims 31 and 33 rejected under 35 U.S.C. §103(a) as being unpatentable over Sutton. Applicants submit that claims 31-33 should be allowable since they are dependent on allowed claim 17.